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ABSTRACT

This paper highlights research into the positive possibilities for children in school and life when they have access to high-quality care and education before entering public school. Three key components of early care and education are discussed in the paper. The first, quality in early care and education, addresses: (1) What is high quality and why does it matter? (2) What quality of care do most children currently receive? and (3) What are the connections between quality and the compensation and training of child care workers? The second section, on access and financing, asks: (1) How are early care and education services currently financed and how does financing affect access to services? (2) What are options for reforming the financing of early care and education to provide universal, high-quality services? and (3) What financing strategies are states and localities currently using to expand access to high-quality early care and education services or to improve the quality of existing programs? The third section discusses roles for public schools in supporting and building on high-quality early care and education. This section addresses: (1) How might schools expand their role as providers of early care and education services? and (2) How can schools build on high-quality early care and education services through transition services and supports? (Contains 82 references.) (EV)

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NEA RESEARCH
WORKING PAPER
November 1998

Promoting Quality in Early Care and Education

Issues for Schools

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G. Felton

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NOVEMBER 1998

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FOREWORD

The National Education Association is providing an important service by exploring the need to finance *quality* care and education for all children, beginning at the earliest developmental stages. This report on promoting quality early care makes it plain that it can't just be quantity—quality matters.

We must start early—during the crucial developmental stage from ages zero to three.

During the years from zero to three, a child develops a sense of self-esteem, an enthusiasm for learning, and the potential for caring and empathy. But the full development of these vital attributes in a child's personality is neither inevitable nor automatic: caring adults must nourish these capacities during this crucial period, or they may never take root.

In my work, private practice, and Touchpoints program, the unifying aim is to enhance the quality of care from the very outset of a child's development. In the Touchpoints training for relationships between parents and providers, we promote more effective early childhood development as a foundation for later learning and life by working with health care providers and moms and dads throughout the country. We recognize the strengths that parents bring rather than their "deficiencies" and treat them with respect for their expertise. We work hard to make child development a shared concern among educators, health providers, and parents, using child development as a shared language. And we see vulnerability in children and parents not as a weakness but as an opportunity—as long as providers don't dictate or condescend but instead share the aspirations of parents and understand the challenges of parenthood. Everyone—staff, telephone operators, bus drivers—is educated in this positive, supportive model. This is necessary if all parents, regardless of background, are to be supported in creating a positive atmosphere for the growth of their children.

The new brain research suggests that children can profit from well-thought-out and well-implemented programs of care and education at the youngest ages. High-energy, committed, and well-trained child care workers and teachers are needed, and that may cost us. There seems to be no way around that. I look at the potential funding sources as fourfold: national, state, business, and individual. This report explores these funding options and

offers some strategies to stimulate our thinking. But whatever mechanisms or combinations of funding we use, we need to support the building of health care preventive services into centers for child care. In this way, education and health become synergistic, not additive. Childcare centers, or early education centers, should thus adopt an "outreach" model in which parental involvement becomes a major goal. We adults can find a way, through legislation especially, to facilitate such universal quality care at a reasonable price.

But start early. I emphasize again that the ages from zero to three are critical. It is there that the young child develops his or her self-image, the motivation and curiosity to learn new things. It is then that a child becomes altruistic and begins caring about people. We need our care providers—parents, childcare workers, education support staff, and teachers—to recognize and value the uniqueness of this early opportunity to nourish children's fundamental human traits. We need our care teams skilled in providing environments and maintaining relationships with children that elicit their potentials as human beings. Thus, it's so important to establish and continue high-quality care, beginning with care for expectant mothers, continuing with their infants and toddlers, and standing by the children as they mature and continue their lives and educational careers. We want our children to enter life and find a safe, healthful, loving, and wonderfully stimulating environment and family life where they can absorb what they need to be successful, thriving people. We *can* do this.

I believe that we, as a nation, must finance quality child care and education. It is our duty and our future. This paper helps build that future. It furthers all of our dreams.

T. Berry Brazelton, MD
Cambridge, Massachusetts
November 1998

Editor's Note: Dr. T. Berry Brazelton is co-founder, with colleague Edward Z. Tronick, Ph.D., of the Child Development Unit at Boston Children's Hospital and Harvard Medical School. He is clinical professor of pediatrics emeritus at Harvard Medical School, where the T. Berry Brazelton Professorship in Pediatrics, an endowed chair in child development, has been established in his honor. He is author of 28 books and more than two hundred scholarly papers on pediatrics and child development. His books include *Infants and Mothers*, which has been translated into 18 languages; *Working and Caring*, which offers advice to working parents; and *Touchpoints*, which offers advice on predictable periods in child development and how families can manage them. Dr. Brazelton also produces a widely acclaimed television series, "What Every Baby Knows," extending the advice given in his book of the same name. His Brazelton Institute is located in Cambridge, Massachusetts.

PREFACE

New reports in scientific journals and the popular press suggest that much important work in child development—language acquisition, social adjustment, and affect—occurs or does not occur before children reach the public school house door.

Imagine two different children and their childcare circumstances before encountering school. One child has a vibrant, stimulating experience with life before school, including lots of conversations, word games, "writing," and exploration with caring adults and similarly engaged peers; the other child sits idle, with TV perhaps, in a merely custodial setting, while the parents work. Then it's time for them both to enroll in public schools in a high-stakes, standards-based, accountable educational environment. Each child, despite vastly different care and development, is asked to perform to high standards and to bear the consequences. Which will succeed? What persisting performance gaps may develop and recur? What chances of reducing these gaps do we have, Title I notwithstanding? We know too well the answers to these rhetorical questions about a real problem in American education: We start too late and pay too little attention to the circumstances of children before they arrive at school.

Small wonder that kindergarten teachers perceive that a third of their new kindergarten students—these fresh faces waiting to explore a new world of education—are not prepared for school. But, that doesn't have to be.

The research reported in this paper describes in some detail the positive possibilities for children in school and in life when they have access to quality care and education before entering public school. The current situation is not a pretty sight. Although 60 percent of prekindergarten children are in nonparental care before school, much of that care is mediocre or poor. On average, center-based care for infants and toddlers and family- and home-based care are of even poorer quality, according to the studies cited in this report. This poor care affects not only individual children but also our performance in K-12 education and the prosperity of our communities.

As NEA members, friends, and colleagues, we can begin to improve current conditions by becoming aware. We can learn about what some local communities, states, and national groups are suggesting as ways to improve the financing of quality programs for early learners. It comes down to money. The level and method of funding early education are key determinants of quality and results.

Our mission, in effect, is to promote and advance the developmental work begun in homes and other care setting across the nation. This is a community problem that requires a community solution. We can solve it through engagement with all sectors of our local and state communities involved in the care, education, health, and safety of children. It's work in which we should lend all our hands and our hearts for our mutual benefit.

Many thanks to Elizabeth A. Stief and Theresa M. Ellis of Policy Studies Associates, Inc., of Washington, D.C., who prepared this study for the National Education Association.

Please contact Robert Glenn, NEA Research, with any comments or questions concerning this study.

Promoting Quality in Early Care and Education

Issues for Schools

In recent years the number of young children receiving nonparental early care or education services before they enter school has increased dramatically. Factors in this increase include women's greater participation in the work force, changes in family structure, and parents' desire to provide children with educational experiences to prepare them for school (Hofferth 1996). In 1995—the most recent year for which data are available—fully 60 percent of the 21 million children below the age of six who had not yet enrolled in kindergarten participated in a nonparental early care or education setting (West, Wright, and Hausken 1995).

These preschool services are important. Research suggests that high-quality programs have many benefits, including enhanced achievement in school, reduced retention in grade, and increased rates of graduation from high school (Barnett 1995). Indeed, the first objective under Goal One of the National Education Goals—"By the year 2000, all children in America will start school ready to learn"—calls for increasing access to high-quality and developmentally appropriate preschool programs for all children.

Despite the importance of these services, the system of early care and education in the United States is essentially a "nonsystem" characterized by numerous programs with varied missions, settings, goals, and targeted populations. The most important division in this arrangement is the distinction between child care and early education services. Traditionally, child care services have been viewed as custodial care necessary for mothers to work. Early education or child development services, on the other hand, have focused on the goal of preparing children for school success. However, recognizing that early learning experiences take place in all early care settings and that these early learning experiences are important for later success in school and life, many experts have argued that the distinction between child care and early care and education is a false one. They have thus called for reform to ensure that all children have access to high-quality programs that enhance their development (see, for example, Carnegie 1996; Gomby et al. 1996; Kagan and Cohen, in press).

Three key components of early care and education, discussed below, are

- *Quality in early care and education.* This includes several issues: (1) What is high quality in early care and education and why does it matter? (2) What quality of care do most children currently receive? and (3) What are the connections between quality and compensation and training of child care workers?

- *Access and financing.* The specific issues are the following: (1) How are early care and education services currently financed and how does financing affect access to services? (2) What are options for reforming the financing of early care and education to provide univer-

sal, high-quality services? and (3) What financing strategies are states and localities currently using to expand access to high-quality early care and education services or to improve the quality of existing programs?

- *Roles for public schools in supporting and building on high-quality early care and education.* The questions here are (1) How might schools expand their role as providers of early care and education services? and (2) How can schools build on high-quality early care and education services through transition services and supports?

Several key findings emerge from these questions. Recent studies suggest that high-quality early care and education services can play an important role in children's development and later success in school, yet most children do not currently benefit from high-quality services. Many experts point to the current system of financing early care and education services as the primary reason for the low quality of care that most children receive. Researchers agree that the current national funding of about $40 billion is not sufficient to pay for high-quality services for all children. Experts estimate that an additional $80 billion would be necessary to finance universal, good-quality child care, and an additional $140 billion would be necessary to finance universal care of the highest quality (Gomby et al. 1996). None of the many proposals for reform raised so far at the national level emerge as clear solutions that could garner national support.

At the same time, many states and localities are moving ahead with innovative financing strategies to increase access and improve quality on a smaller scale (some examples follow, below). Public schools also can take a number of steps to support high-quality early care and education services, including serving as providers and building on children's early care and education experiences through transition services and supports.

Quality in Early Care and Education

Early care and education services incorporate center-based child care, family child care or in-home care, and preschool and nursery school services and are often described by the short-hand term *child care*. But why is attention to children in their early years crucial, and what defines *quality* in early child care and education?

What Is High Quality and Why Does it Matter?

Recent research has proved that the early years of a child's life are, developmentally, the most important. During the first three years, links between brain synapses form that determine a child's ability to feel, analyze, and compute information; during the subsequent four years, these links are strengthened (Nash 1997). It should not be surprising, therefore, that high-quality child care fosters an environment amenable to children's growth. In fact, some argue that the child care environment has a direct impact on how a child's brain develops (Newberger 1997).

Research also shows that children who receive high-quality early childhood services outperform their peers who did not receive similar services. Long-term effects of high-quality early childhood programs documented through three decades of research include (1) enhanced achievement in school, (2) decreased retention in grade, (3) reduced placement in special education, and (4) increased likelihood of graduation from high school (Barnett 1995). The High/Scope Perry Preschool study is perhaps the best known and most comprehensive evidence of the success of high-quality early childhood programs. This longitudinal study has tracked the lives of 123 African Americans born to families with poverty-level income since 1962. The latest data show that at age 27, former participants in this two-year preschool intervention had higher rates of high school graduation, higher earnings, and fewer arrests. They were also more likely to own a home and were less likely to receive welfare or other social services than their non–Perry Preschool counterparts (Schweinhart, Barnes, and Weikart 1993).

High-quality care is defined in two, often complementary, ways: suggestions based on theories of child development (theory) and findings from research on classroom practices that yield good outcomes (research). Together, these two areas of inquiry point to six key features that indicate high-quality early care and education programs: (1) high staff–child ratio; (2) small group size; (3) adequate staff education and training; (4) low staff turnover; (5) a curriculum emphasizing child-initiated, active learning; and (6) parent involvement. These features are sometimes called *structural quality* elements because they create the necessary conditions for positive staff–child interactions and child development outcomes.

High staff–child ratio. Child development experts believe that high-quality care environments should have a high adult–child ratio to ensure that adult caregivers can mediate the child's interaction with the social and physical world (Phillips 1987). The theory is logical: When adults have more children to care for, each child receives less individualized attention. Research has found that a high adult–child ratio increases children's imitation of adults (Francis and Self 1982), increases children's verbal interactions (Field 1980; Howes and Rubenstein 1985; Smith and Connolly 1981), and increases children's engagement in play (Bruner 1980; Field 1980; Howes and Rubenstein 1985). Indeed, a recent national study of child care centers found that staff–child ratio was the most significant determinant of the overall quality of a program (Cost, Quality, and Child Outcomes Study Team 1995a). Recommended guidelines developed by the National Association for the Education of Young Children (NAEYC), for adult–child ratios for children of different ages are included in Table 1.[1]

Small group size. Child development theories suggest that the size of a group of young children influences the quality of care they receive. These theories suggest that socialization occurs more quickly when children are in smaller groups because the environment is free from a large number of distractions (Howes 1983). Research confirms this theory. In small groups, children talk more willingly and take greater verbal risks (Howes and Rubenstein 1985). Children in centers with fewer than 26 children have been found to play more elaborately than those in centers with larger numbers of children (Bruner 1980). Children's cognitive abilities develop faster in centers with fewer children, and the children are more confident of their own abilities (Mantzicopoulos et al. 1994; Sherman and Mueller 1996; Stipek et al. 1995). Infants exhibit fewer signs of stress when they are in centers with smaller group size (Stith and Davis 1984). Caregiving in smaller groups is also more responsive to infants' needs (National Institute of Child Health and Human Development Early Child Care Research Network 1996). Finally, analyses of long-term studies of model preschool programs have found that programs with small classes and high staff–child ratios have the most favorable outcomes for children, including enhanced cognitive development and school achievement and reduced aggressive behavior (Barnett 1995; Yoshikawa 1995). NAEYC guidelines for group size are included in Table 1.

Adequate Staff Education and Training. Theory suggests that caregiver training, education, and skills have a profound impact on children's development. Researchers have found that specialized training yields high-quality results because caregivers are able to offer specialized interaction and provide age-appropriate care (Berk 1985; Howes 1983; Sherman and Mueller 1996). Research has also shown that teachers with more education—in whatever area—are more likely to advance children's verbal skills and to be more encouraging of children's work (Berk 1985) and to provide more sensitive caregiving

TABLE 1: NAEYC RECOMMENDATIONS FOR ADULT–CHILD RATIO AND GROUP SIZE

Age of children	*Adult–child ratio*	*Number of children per group*
0 to 12 months	1:3 to 1:4	6 to 8
12 to 24 months	1:3 to 1:5	6 to 12
24 to 30 months	1:4 to 1:6	8 to 12
30 to 36 months	1:5 to 1:7	10 to 14
3 years	1:7 to 1:10	14 to 20
4 to 5 years	1:8 to 1:10	16 to 20

(Whitebook, Howes, and Phillips 1990). A recent national study of more than 400 child care centers found that the overall quality of a center increases with the percentage of staff who have a high level of education (Cost, Quality, and Child Outcomes Study Team 1995a). NAEYC accreditation guidelines call for lead early childhood teachers to have at least a Child Development Associate credential or an associate degree in early childhood or child development. These guidelines also call on programs to provide regular opportunities for staff training (NAEYC 1991).

Low Staff Turnover. Consistent with the belief that the disruption of relationships between children and their caregivers is harmful to children's development, studies have found that high staff turnover diminishes the quality of care that children receive. Negative outcomes linked to high staff turnover include poorer language and social development (Howes and Hamilton 1993; Whitebook et al. 1990). Research has also found a strong linkage between high staff turnover and poor compensation for child care professionals (Whitebook et al. 1990; Whitebook, Sakai, and Howes 1997). One recent national study found that teachers in child care centers earned, on average, $5,238 per year less than they could make in other professions, given their education, racial and ethnic background, gender, and age (Helburn and Howes 1996). For-profit centers vary little in terms of compensation and turnover. Nonprofit centers, however, vary significantly. Church-affiliated centers tend to offer lower wages, have higher staff turnover, and provide lower overall quality than other independent and publicly operated nonprofit centers (Cost, Quality, and Child Outcomes Study Team 1995b).

A Curriculum Stressing Child-initiated, Active Learning. Constructivist theories of child development posit that children learn best when they are actively engaged with their environment (Bredekamp and Copple 1997). Analyses of research on effective preschool interventions have found that the curricula in the most successful programs engage children as active learners (Frede 1995). Other research suggests that young children experience lower levels of stress in classrooms emphasizing child-initiated learning (Burts et al. 1992; Hyson, Hirsh-Pasek, and Rescorla 1990), enhanced creative thinking (Hirsh-Pasek, Hyson, and Rescorla 1990; Hyson et al. 1990), and better language outcomes (Dunn, Beach, and Kontos 1994; Marcon 1992). One long-term study has also documented lower crime rates among adults who experienced early childhood programs in which they initiated their own learning, compared with adults who experienced teacher-directed early childhood programs (Schweinhart and Weikart 1997).

Parent Involvement. Many researchers have concluded that parent involvement has a significant impact on the quality of education young children receive (Bredekamp and Copple 1997; Demarest et al. 1993; Powell 1989). Involving parents in early childhood education and care programs ensures that they are familiar with their children's progress and enables them to reinforce what teachers are doing in the classroom (Regional Educational Laboratories Early Childhood Collaboration Network 1995). Indeed, research indicates that the most successful preschool interventions often involve parents in their children's learning (Gomby et al. 1995). NAEYC accreditation guidelines call on programs to keep parents well-informed and to welcome them as observers and contributors to the program (NAEYC 1991).

What Quality of Care do Most Children Receive?

Despite the many findings that stress the importance of high-quality early childhood experiences, two recent multisite observational studies suggest that most children are not receiving high-quality services.

Quality in Center-based Care. A recent study examined the overall quality of care in 401 child care facilities in four states and found that only 14 percent of centers provided services of high enough quality to support children's development. The study team judged some 12 percent as low enough in quality to be harmful to children's development (Cost, Quality, and Child Outcomes Study Team 1995a). Services provided to infants and toddlers were of particularly low quality, with only 8 percent of the classrooms judged as good and 40 percent judged as poor. The study found that "market forces—including strong price competition and lack of consumer demand for quality—constrain the cost of child care and at the same time depress the quality of care provided to children" (Cost, Quality, and Child Outcomes Study Team 1995b). In addition, the study found that centers that have access to supplemental resources provide better overall quality.

The study also provided information on some key features indicative of quality outlined above. The average staff–child ratio for the child care facilities examined in

the study were one adult for every three or four infants and toddlers and one adult for every six preschoolers (within NAEYC recommendations). Average group size was 8 for infants and toddlers and 14 for preschoolers (also within NAEYC recommendations). In staff education, the study found that 28 percent of the teaching staff had college degrees and 46 percent had some college work. The study also documented an annual staff turnover rate of 37 percent, a rate considered to be higher than ideal for supporting high-quality care.

Quality of Family-based Care. The statistics on the quality of care that takes place in the provider's home are even more disheartening. A recent multistate study of the quality of care children receive in family- or relative-based child care settings found only 9 percent of settings providing high-quality, growth-enhancing services. At the same time, 56 percent of the homes were rated as adequate/custodial care (neither growth-enhancing nor growth-harming), and 35 percent were judged as inadequate or harmful to children's growth and development (Kontos et al. 1994). In addition, the study found that children from low-income families were more likely to be in low-quality care than were children from higher-income families. Children from minority families were also more likely to be in low-quality care.

Among the structural features of quality outlined earlier, the study found relatively low levels of formal education and experience in child care among providers and high turnover—the typical provider had only one year of experience as a provider. Typical family-centered child care had a single caregiver and a staff–child ratio of about one to three.

Access and Financing Issues

Why don't more families have access to high-quality care that supports their children's development? Most experts point to the financing of the current system of early care and education services.

How Are Early Care and Education Services Currently Financed?

Reflecting the state of the "system," the financing of early care and education services is achieved through a complicated mix of public and private funding. No comprehensive data exist on the overall amount spent on early care and education each year or on the various contributions made by parents, government, and the private sector. Researchers have made estimates based on the available data, however. One of the most recent estimates suggests that $40 billion is spent on early care and education services annually by parents, governments, and the private sector (Stoney and Greenberg 1996). Most experts agree that families shoulder the largest percentage of that $40 billion. The Bureau of the Census estimated total consumer expenditures for early care and education services necessary for mothers' labor force participation at $25.4 billion in 1993 (personal communication with Lynn Casper, Bureau of the Census). This estimate does not include consumer expenditures for early care and education arrangements that are not related to mothers' participation in the labor market (e.g., enrichment programs for children whose mothers are not participating in the labor force). The amount that families pay for care varies widely depending on the child's age, type of care, and location of the program. The percentage of family income spent on care also varies. In 1993, families with annual incomes below $14,400 that paid for care spent 25 percent of their incomes on child care, in contrast to the 6 percent that families with annual incomes of $54,000 or more paid (Casper 1995).

Government investment pays for most of the balance of early care and education services, although precise numbers are not available. Government investment in early care and education takes many forms, including providing services directly, making vouchers or reimbursements available to families, forming contractual arrangements with providers, and giving tax relief to families. In general, the last strategy, tax relief, benefits middle- and upper-income families, and the others benefit low-income families. Of these public subsidies, the federal government provides the largest amount. The federal government funds myriad early care and education programs—more than 90 of them for children from birth through age five (GAO 1994). But the majority of the federal investment in early care and education is through only three programs—the Head Start program, the new Child Care and Development Block Grant, and tax subsidies through the Child and Dependent Care Tax Credit and the Dependent Care Assistance Program. The following paragraphs describe each of these programs, which—with a variety of smaller programs—combine to equal the federal dollars available for early childhood care and education.

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- ***Head Start***. The federally funded Head Start program targets low-income children ages three to five and is designed to provide comprehensive child development services. The program served 752,077 children in fiscal 1996, primarily through part-day, part-year services. Appropriations for fiscal 1997 totaled almost $4 billion, an increase of $500 million over fiscal 1996 (Head Start Bureau 1997). Funds are distributed directly to local grantees.

- ***Child Care and Development Block Grant.*** Created by the 1996 federal welfare reform law, the new Child Care and Development Block Grant combines several previous funding streams, including Aid to Families with Dependent Children Child Care, Transitional Child Care, and At-Risk Child Care, and consolidates them under the former Child Care and Development Block Grant. This new Child Care and Development Block Grant provides money to states to provide child care subsidies for low-income working families and includes funds that are available to states without being matched and some that require state matching. States must use a minimum of 4 percent of their grant funds to improve the quality and expand the supply of child care. Federal appropriations for the Child Care and Development Block Grant were $2.8 billion in fiscal 1997, although the amount that will be expended will depend on states' provision of the matching funds required to receive some of these funds (Child Care Bureau 1997).

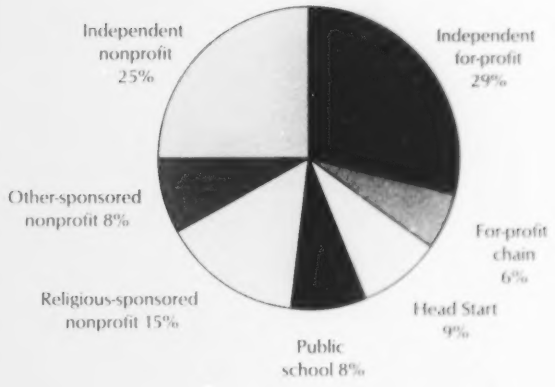
- ***Child and Dependent Care Tax Credit and Dependent Care Assistance Plan.*** The federal government also supports early care and education through tax-based subsidies. The Child and Dependent Care Tax Credit (CDCTC) allows taxpayers to receive a credit of up to 30 percent of the first $2,400 of the cost of caring for a child below age 13 or an incapacitated dependent. The percentage of the credit declines as income increases. The maximum credit is $720 for one child and $1,440 for two or more children. The federal revenue loss associated with the Child and Dependent Care Tax Credit was estimated at $2.8 billion in 1995 (Stoney and Greenberg 1996). Under the Dependent Care Assistance Plan (DCAP), taxpayers may set aside up to $5,000 per year in pretax earning for child care if their employer participates in the program and has established such a plan. In 1994, the revenue loss associated with the Dependent Care Assistance Plan was estimated at $675 million (Stoney and Greenberg 1996). Because the Child and Dependent Care Tax Credit is nonrefundable and the Dependent Care Assistance Plan reduces taxable income, both of these subsidy programs tend to benefit upper-income families.

Most states also support early care and education through tax subsidies for families incurring child care expenses, matching funds to draw down additional federal funding for child care subsidies, investments in state prekindergarten programs, supplemental funding of the federal Head Start program, and state child care subsidy programs. During fiscal 1994, states spent an estimated $1.6 billion on early care and education services in addition to the $764 million spent to match federal funds (Adams and Poersch 1996). Although comprehensive information is not available, many local governments also support early care and education services.

Finally, the private sector—including employers, charitable organizations, private foundations, and religious organizations—contributes to early care and education services. Although the exact amount of these contributions is unknown, it is probably less than 1 percent of annual expenditures for early care and education services (Stoney and Greenberg 1996).

Children's early care arrangements reflect the diversity of these funding arrangements. In 1995, of the almost 13 million children below the age of six participating in a nonparental early care or education setting other than kindergarten, 35 percent were cared for by relatives in a home-based setting. Some 30 percent were cared for by nonrelatives in a home-based setting, and 52 percent were in center-based programs, including child care centers, Head Start programs, preschools, prekindergartens, and other early childhood programs (West et al. 1995).[2] The administrative auspices of child care centers also reflect the diversity of funding arrangements. As Figure 1 shows, in 1990 (the most recent year for which comprehensive data are available), 35 percent of centers operated as for-profit businesses, 29 percent were independent nonprofits, and most of the remainder operated under the sponsorship of religious groups, Head Start, or the public schools.

FIGURE 1: ADMINISTRATIVE AUSPICES OF CHILD CARE CENTERS IN THE UNITED STATES, 1990

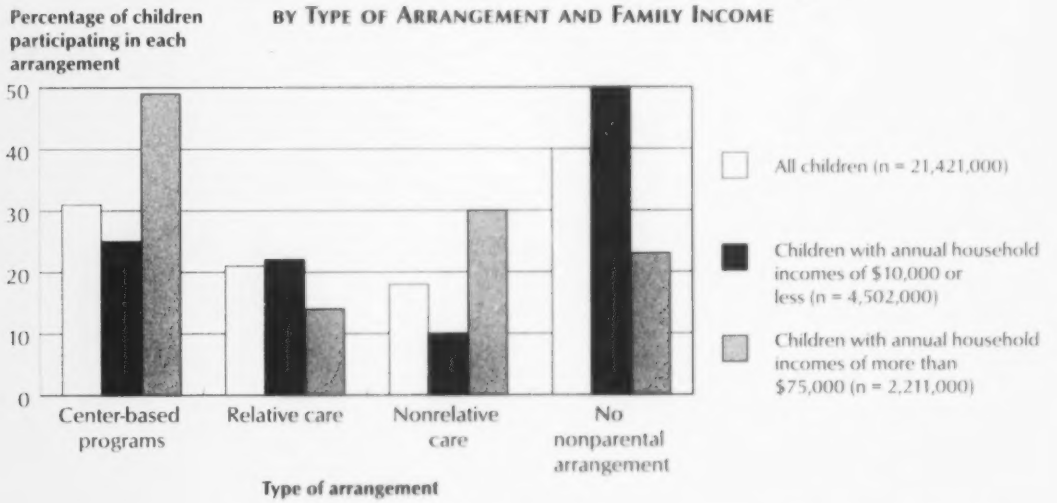


Source: B. Willer et al., *The Demand and Supply of Child Care in 1990* (Washington, D.C.: National Association for the Education of Young Children, 1991), p. 21.

How Does Financing Affect Access to High-Quality Services?

In general, experts agree that the current system of early care and education is underfunded and relies too heavily on parent fees to provide high-quality services to all children (Carnegie Corporation of New York 1996; Gomby et al. 1996). High-quality care is labor-intensive and thus expensive. The full cost of full-time, high-quality care has been estimated at $8,425 per child per year (Willer 1990), a cost well beyond most parents' means. This estimate is based on the cost of meeting standards for staff–child ratios, group sizes, staff preparation and training, and compensating staff at a level equivalent to wages earned by comparable individuals in other professions. Other researchers assert that good-quality care can be purchased at a lower cost, perhaps $6,000 per child per year (Gomby et al. 1996).[3] Regardless of the estimate used, a substantial gap remains in funding between the current annual level of about $40 billion and the $120 to $180 billion needed, based on estimated per child costs of $6,000 to $9,000.

FIGURE 2: PERCENTAGE OF CHILDREN UNDER 6 YEARS OLD PARTICIPATING IN CHILD CARE AND EARLY EDUCATION PROGRAMS IN 1995 BY TYPE OF ARRANGEMENT AND FAMILY INCOME



Source: J. West, D. Wright, and E.G. Hausken, *Child Care and Early Education Program Participation of Infants, Toddlers, and Preschoolers* (Washington, D.C.: National Center for Education Statistics, U.S. Department of Education, October 1995).

Note: Estimates are based on children under 6 years old who have yet to enter kindergarten. Columns do not add up to 100 percent because some children participated in more than one type of nonparental arrangement. Center-based programs include day-care centers, Head Start programs, preschools, prekindergartens, and other early childhood programs.

The current heavy reliance on parent fees puts low-income families at a disadvantage in securing high-quality care. Although government subsidies, the Head Start program, and state preschool programs help, these programs do not reach all low-income families, and many states report long waiting lists for subsidies (GAO 1995b). Low-income families face particular difficulties accessing center-based programs. These programs are more expensive than family child care and relative care arrangements (Casper 1995), and they are less likely to be available in low-income communities. Analyses of a 1990 national survey of child care settings have found fewer center-based programs with less capacity in lower-income areas than in higher-income areas (Fuller and Liang 1995; Love and Kisker 1996).

Since 1990, the National Education Goals Panel has tracked the differences in rates of center-based early care and education participation among three- to five-year-olds from low- and high-income families. The panel has found little change in the disparities over the years. In 1995, 45 percent of families with annual incomes of $10,000 or less sent their preschool-aged children to center-based early care and education programs, in contrast to 71 percent of families with incomes of $50,000 or more (National Education Goals Panel 1995). As Figure 2 shows, among all children below age six and not yet in kindergarten in nonparental care arrangements in 1995, lower-income children were significantly less likely than children from higher-income families—here defined as having annual incomes of $75,000 or more—to receive services in a center-based setting (West et al. 1995). As noted earlier, two recent multisite studies have suggested that the quality of care provided in family child care homes is generally lower than the quality of care provided by centers. These studies also show that lower-income children in family-based care get poorer quality care than do higher-income children in the same setting (Cost, Quality, and Child Outcomes Study Team 1995a; Kontos et al. 1994). Studies have also found a more limited supply of regulated programs in lower-income neighborhoods, whether center-based or family day care homes (Siegel and Loman 1991).

What Are Options for Reforming the Financing of Early Care and Education?

Given the current situation, it is not surprising that many have suggested reforms to the system of early care and education to increase access to high-quality care. Gomby and colleagues (1996) summarize the four major policy alternatives that have dominated the reform discussion in recent years:

- ***Consolidating existing federal funding into one block grant.*** Some have called for consolidation of existing federal programs for early care and education services to create a unified system that encompasses both child care and early education services and tax and expenditure policies. This is the most modest of the four proposals commonly discussed. Although this proposal would help states and localities maximize current funding by coordinating resources and streamlining the current system of early care and education, it would not generate the new revenue needed to provide universal access to high-quality services.

- ***Financing care through the public schools.*** Proponents of this proposal suggest that the public's familiarity with and support for the public schools could help to garner public support for increased investment in services. Proposals vary as to whether services would be provided or only funded through the public education system. Most proposals focus on services for three- to five-year-olds.

- ***Initiating a paid parental leave system for parents of very young children.*** Some have proposed a paid parental leave system like that in many European nations that allow parents to stay home with very young children as long as two years after birth. Proponents argue that this proposal would address the scarcity of high-quality, affordable care for such young children and could be coupled with universal early care and education services for older preschoolers. Some have proposed that such a system be financed through employee-paid payroll taxes (Walker 1996).

- ***Providing families with child allowances.*** Also drawing on the practices of some European nations, some have called for child allowances, or per child cash payments, to allow parents to choose whether and what kind of care to purchase. Some have suggested providing allowances by expanding current tax credits that support early care and education services and making them refundable.

Regardless of the approach taken, Gomby and colleagues acknowledge that reform will be costly, on the order of an additional $80 billion to $140 billion. Experts have suggested a variety of strategies for raising the revenue necessary for reform. Because of the magnitude of the funds needed, the primary recommended strategies have been tax-based, including federal or state income taxes, federal payroll taxes, sales or excise taxes, and state or local property taxes. Other strategies that could supplement tax-based funding include fees and lotteries, special budget set-asides, public-private partnerships, and increased private sector contributions (i.e., business and philanthropy). Examples of how a few states and localities are currently using some of these strategies on a smaller scale to increase investment in early care and education services are described below.

Regardless of the reform strategy and financing mechanisms used, Gomby and her colleagues recommend eight principles that should guide financing reform efforts:

1. Public support for child care or child rearing should be available to all families.

2. Lower-income families should be given more assistance for child care than upper-income families.

3. The financing system should encourage parental choice, including parents' ability to choose the type and the provider of care and the ability to choose whether to purchase care at all or to stay home with a child.

4. The financing system should eliminate inconsistencies between child care and early education policies so that the primary focus of all early care and education services is promoting child development.

5. The reformed system should coordinate tax and subsidy financing mechanisms at the federal, state, and local levels.

6. The financing system should consider the needs of children of all ages. A single early care program will not meet the needs of all children; instead, a variety of programs should be available to meet the developmental needs of children of varying ages.

7. The financing system should have regulatory requirements, including regular visits from licensing officials to monitor program quality and adherence to health and safety standards.

8. Accountability systems should be built in so that child care expenditures can be easily monitored.

What Financing Strategies Are Currently Being Used at the State and Local Levels?

Mitchell and colleagues (1996) outline five strategies for funding early childhood care and education at the state and local levels that can be used to address both quality and access. These include (1) creating new public revenue; (2) reallocating existing public revenue; (3) funding child care through the private sector; (4) forging public–private partnerships to support child care; and (5) using bonds, loans, and state grants. Many states and localities are using several of these strategies in combination to expand and improve their early care and education services.

Creating New Public Revenue. States and localities have used several methods to raise new public revenue to address both quality and access issues, including taxes, fees, and lotteries. Most states have adopted child and dependent care tax provisions similar to the federal credit described earlier (Mitchell et al. 1997). Some states have also implemented innovative strategies for supporting early care and education services through taxes. In Colorado, for example, when residents paid their state taxes in 1997, they could check a box on the tax form indicating that they wanted to contribute a nominal additional amount to enhance licensed child care facilities in the state. This voluntary tax check-off generated about $500,000 in its first year and is expected to generate between $250,000 and $500,000 in subsequent years. (This and subsequent examples of strategies for raising revenue for early care and education are described in Mitchell et al. 1997.)

Similarly, Florida's Children's Services Special Taxing Districts are an example of a strategy for generating revenue from local property taxes. With the approval of the county board, all counties in Florida can create special taxing districts with boundaries that are coterminous with the county. At the end of fiscal 1995, six of these taxing districts generated $63 million in revenue that was

set aside for children's programs, including child care. Some localities are also drawing on sales taxes to support early childhood programs.

In Aspen, Colorado, citizens passed a referendum in 1990 to collect an additional 0.45 percent sales tax for the next 10 years. The tax generates about $1.5 million annually for child care and related initiatives. The city council allocates the revenue among three service areas: (1) child care resources and referral services, (2) grants to nonprofit organizations for improvement of child care facilities, and (3) child care assistance for low-income families. In 1992, Aspen established a child care trust in which 20 percent of all revenues raised through this tax are placed to ensure continued income for these efforts after the tax expires in 2000.

Fees, unlike taxes, are generated when people use services. They have become an increasingly attractive way to raise money because of the recent reluctance to increase taxes across the country. Moreover, fees appeal to legislatures because they are optional and allow people to regulate how much they spend individually (Mitchell et al. 1997). Massachusetts, for example, has created a license plate to generate revenue for quality improvements in early childhood care and education services. Spurred on by the United Way's "Success by Six" campaign to ensure that all children in Massachusetts begin school ready and able to learn, the state legislature created a specialized "Invest in Children" license plate during its 1996 session. The funds from sales of these plates will support teacher training, parent education, equipment and materials, and technical assistance. The state projects that it will raise $2 million in 1997 for which cities will be able to apply through a competitive grant process (Mitchell et al. 1997).

Finally, several states have allocated a portion of their lottery revenue for education. In Georgia, for example, the legislature passed a law in 1992 that all lottery revenue would be used to supplement education programs. In 1997, $185 million was appropriated for universal prekindergarten services for four-year-olds. Florida also uses lottery proceeds to fund early care and education services (Mitchell et al. 1997).

Reallocating Existing Public Revenue. The education reform wave that swept through the country during the 1980s encouraged state investment in prekindergarten programs (Mitchell et al. 1997). Studies show that as states make child care a priority, spending levels increase, often regardless of revenue (Herk 1993, cited in Mitchell et al. 1997). States that have appropriated large amounts of money to support early care and education usually convince their constituents that these services are a necessary component of some larger reform effort. For example, the new welfare legislation has prompted many states to consider providing child care for all low-income parents to eliminate mothers' barriers to working. States have also lobbied for increased child care funds on the basis of school readiness, future economic savings, and crime prevention (Smith, Fairchild, and Groginsky 1995).

In Ohio, for example, the Families and Children First initiative is a comprehensive effort to reform Ohio's educational, social, and family services to reach Goal One of the National Education Goals. Under the leadership of the governor, the initiative has become a priority in Ohio. One of the initiative's objectives is to provide access to high-quality preschool and child care programs to large numbers of Ohio children by the year 2000. The initiative seeks to increase access to care by (1) expanding early intervention services for children from birth to age five, (2) increasing the availability of Head Start to three- and four-year-olds, (3) increasing the number of children receiving child care subsidies, (4) increasing the number of elementary schools with multi-age primary programs, and (5) increasing the number of nationally accredited child care and preschool programs. The governor has created a cabinet council to serve as the central coordinating and advisory body for the initiative, and he lobbied extensively for the $195 million appropriated in fiscal 1995 for early care and education services and supports.

With the inception of its new welfare legislation, which requires all adults capable of working to work, Wisconsin has also made child care for working mothers a budget priority. In order to facilitate the transition from welfare to work, Wisconsin will provide child care subsidies to all families with incomes below 165 percent of the federal poverty level, whether or not they have any connection with the welfare system. The state will distribute vouchers to eligible families that can be used to pay for services from the providers of their choice. The voucher will represent a certain percentage of the cost of care (based on family size, income, and reimbursement ceilings), and the family will pay the balance. The annual allocation for child care subsidies is $158 million in 1997–98 and is projected to increase to $180 million in 1998–99. An additional $75 million in federal savings from previous welfare-related waivers are also being used to provide sub-

sidies and expand the supply and improve the quality of care. Despite this investment, many have criticized the Wisconsin initiative because it creates a tier of "provisionally approved" family-based providers that can serve children without meeting a training requirement (Mitchell et al. 1997). Rhode Island and Vermont have established similar income-based entitlements for child care (Mitchell et al. 1997). With the new welfare legislation, many believe that other states will follow suit (Adams and Poersch 1997).

Funding Child Care through Private Sector Contributions. In many areas, the private sector—both employers and philanthropies—are working to improve child care access and quality. Many employers have realized that investing in child care ultimately means higher productivity from their employees. When parents are comfortable with their children's care, they miss fewer days of work and are more productive while at work (Wolf and Sonenstein 1991). Recognizing this, some employers help defray the cost of child care by helping to build child care centers, recruiting new family child care homes, and improving the quality of service at existing centers.

Con Agra Refrigerated Foods, for example, is helping its employees in three communities to access child care by working with local providers to arrange for care during nonstandard hours and by subsidizing employees' child care costs. Because many employees work on shifts when traditional child care is not available, the company arranges for existing child care providers and Head Start programs to provide child care from 5 a.m. to 12 p.m., Monday through Friday, and part-time on Saturday. Con Agra made an initial contribution to cover start-up costs associated with keeping the child care facilities open for extended hours and provides supplemental pay for a portion of each employee's child care costs. The employees pay the balance of the cost but have the option of having the cost deducted from their pretax salary and deposited in a dependent care assistance plan.

Similarly, many companies in Houston have joined HANDS, the Houston Area Network for Dependent Services, to support and improve early childhood care and education. These companies pool their resources to support an extensive day care network, increase the number of accredited programs, and provide scholarships for professional development for early care and education staff. Employees of these 30 companies as well as other individuals from the community can send their children to the day care centers that HANDS has established. Corporate members of HANDS believe that the more the business community invests in the community it serves, the better business will fare in the long run.

In some areas, philanthropies also play a large role in funding child care. In San Francisco, for example, the Model Centers Initiative of the Miriam and Peter Haas Fund helps low-income child care providers transform their programs into "model centers." To become a model center, care providers must undergo a comprehensive needs assessment and develop an internal plan for improving the quality of care they provide. The size of each model center's grant is based on the reforms proposed in their plan. To date, four model centers have received grants to provide staff development, increase staff compensation, expand the range of services provided to children, and improve facilities.

Forging Public–Private Partnerships to Support Child Care. Public-private partnerships to fund early childhood care and education usually arise when a business decides it wants to make a greater investment in the community where it is located (Mitchell et al. 1997). Although these partnerships are typically local, many states have taken a lead role in promoting them. The Early Childhood Investment Fund, in New York City, for example, was created with an initial investment from the American Express Foundation, the Travelers Foundation, and the State of New York, with the goal of creating long-term systemic change to improve the quality of child care for families working or pursuing work.

While the program was in operation from 1994 to 1996, ongoing funding was generated from three sources: (1) annual budget appropriations from the State of New York, (2) private sector contributions from individual foundations or corporations, and (3) donations from local private sector organizations. The State of New York as well as foundations and corporations made contributions to the fund that local private sector organizations matched. In most areas, local organizations were required to give two dollars for each dollar the fund donated; in poorer areas, the local match was reduced to one dollar.

To receive a grant, applicants had to demonstrate collaboration from all areas of the community. Projects that showed the greatest degree of collaboration and the most need were awarded grants. In the program's nearly three years of operation, $552,052 in grants were awarded,

matched by $1,577,273 in local funds. Similar funds currently exist in California, Maine, Michigan, and Oregon (Mitchell et al. 1997).

Similarly, North Carolina's TEACH (Teacher Education and Compensation Helps) Early Childhood Project is a public–private partnership to improve the quality of early care and education by increasing the knowledge base and compensation of early care and education staff. The program provides scholarships for child care teachers and administrators and family child care providers to pursue their formal education leading to an advanced credential, including the North Carolina child care credential, a Child Development Associate (CDA) credential, or a degree (associate's or bachelor's) in child development. The scholarships provide partial funding for tuition and books and a travel stipend, and all participants who successfully complete the program receive either a raise or a bonus.

The program receives $850,000 to $1,000,000 from the state annually, as well as funding from corporations and foundations. The program has become a model for other states that want to create similar scholarship funds, including Florida, Georgia, and Illinois (Mitchell et al. 1997). More recently, at the White House Conference on Child Care, President Clinton announced the creation of the National Child Care Provider Scholarship Fund, which is modeled after North Carolina's TEACH project (National Child Care Information Center 1997).

At the local level, the Allegheny County Early Childhood Initiative in Pittsburgh, Pennsylvania, is a public–private partnership involving all members of the community—business leaders, parents, government representatives, human service professionals, and concerned individuals—to build and improve local child care programs. The effort began in 1996, when, in response to a challenge grant from the Heinz Endowments, the United Way of Allegheny County committed to raising $59 million from the private sector to start the Allegheny County Early Childhood Initiative. The expectation was that after five years, the public would assume responsibility for funding and overseeing the program. The funds generated through the initiative will be used to build and improve child care centers, support family child care homes, increase funding for Allegheny County's Head Start and Even Start programs, and increase participation in Allegheny County's Beginnings with Books project.

Using Bonds, Loans, and State Grants. Several states, including Arkansas, California, Maryland, North Carolina, and Tennessee, provide direct loans or loan guarantees to help early care and education programs to develop, improve, or expand child care facilities (Mitchell et al. 1997). In doing so, these states hope that they will be able to help centers improve the quality of their operations and expand their work to serve more children and their families. These programs ensure that child care centers are able to secure needed loans, a problem because most programs either do not have sufficient collateral or experience in financial management to convince lenders that they will not default. Some states, including Illinois and Minnesota, also issue bonds that provide grant funds to programs to improve child care facilities. Nineteen states and the District of Columbia have used state appropriations to support small grants for improving child care facilities (Mitchell et al. 1997).

Roles for Public Schools

Recent research that stresses the importance of high-quality early care and education and findings that reveal the low quality of care to which most children have access are a cause for concern in the public school community. A 1991 survey by the Carnegie Foundation for the Advancement of Teaching found that kindergarten teachers believe that 35 percent of the nation's children are not ready for school (Boyer 1991). Of the teachers surveyed, 42 percent said that the situation was getting worse; only 25 percent said that child preparedness was getting better.

In many states, schools play a role in providing high-quality early care and education services to prepare children for school. Some observers have called for schools to play a larger role as providers of early care and education. When child care programs are housed in public schools, care providers often earn salaries comparable to those of public school teachers and are eligible to affiliate themselves with the same labor organizations with which teachers can affiliate themselves. Schools can also play a role in extending the benefits of children's early childhood experiences by establishing transition services and supports that provide continuity for children as they move from early care and education settings into the early grades. Three schools are profiled below that both offer school-based early care and education programs and build on these and other community-based early care and education programs through transition services and supports. At each of these three schools, early care and education teachers who are employed by the school earn salaries

comparable to those of other school teachers and are eligible for union membership.

How Might Schools Expand their Role?

In many places across the country, schools serve as providers of early care and education services. Currently, at least 27 states provide state-funded prekindergarten services for at-risk four-year-olds or three- and four-year-olds; one state—Georgia—provides universal prekindergarten for four-year-olds (Adams and Sandfort 1992; Knitzer and Page 1996). Arguing the need for a coherent system to provide universal, high-quality care, and drawing on international examples, some experts have proposed that schools serve as primary providers of early care and education services in the United States. Proponents of implementing such a school-based model in the United States, such as Zigler and Finn-Stevenson (1996), argue that such an approach would create a universally accessible system of care, eliminate the distinction between early care and education services, and equalize access to high-quality programs. The model would also address the problem of low wages, which are in turn linked to high rates of staff turnover and poor quality care for children. However, other child care experts have expressed concerns about saddling schools with additional responsibilities and about mustering the public will to fund such a system. They also are concerned about perpetuating the equity differences that currently exist between schools in upper-income areas and schools in lower-income areas in a new child care system. Finally, they envision having to mediate opposition from existing care providers and the public to implementing a system that is so different from the existing system of diverse public and private providers (Goldberg 1996; Schultz 1996).

Preschool Services in France. In many European countries, universal programs are offered through the public schools. In France, for example, universal preschool services for three- to five-year-olds are administered and financed through the Ministry of Education. Although not initially universal, the program was expanded after studies conducted by the Ministry of Education found that each year of preschool decreased a child's likelihood of school failure, particularly for disadvantaged children (Boocock 1995). The program offers full-day services focused on child development. The basic program is free; parents pay only for supplemental services—such as meals and after-school care—based on their ability to pay. In addition, in areas with high concentrations of children at risk of school failure, the Ministry has established "education priority zones." Early childhood programs in these zones receive extra funds to hire more teachers, reduce class size, and serve two-year-olds in addition to three- to five-year-olds (GAO 1995a). These programs also receive extra materials and technical assistance. Although the program is administered and funded through the schools, the preschool facilities are often free-standing structures, which may or may not be located adjacent to school sites. Estimated staffing costs across the sites visited averaged between $710 and $1,480 per child (excluding operational costs). Staff salaries are equivalent to the salaries of school teachers, and staff turnover—a key element of quality—is low (GAO 1995a).

Schools for the 21st Century. One prominent model for school-based early care and education services that is growing in the United States is Schools for the 21st Century, a concept developed by Edward Zigler in 1987, which has now been implemented in more than 400 schools in 13 states (Zigler and Finn-Stevenson 1996). The model calls for implementing a high-quality child care and family support system within the existing educational system. Core services include school-based, year-round services for children aged three to five, school-based extended-day and vacation care for school-age children, and family support and outreach services, such as home visiting, information and referral services, and support and training for family child care providers. Schools are also encouraged to provide additional family services as needed, according to community needs assessments. The model is based on seven principles:

1. The child care system must provide universal access to high-quality services.

2. Family participation in child care or supportive services must be voluntary.

3. Child care must promote the development of the whole child, including cognitive, physical, social, and emotional development.

4. Parents must be viewed as partners in service planning and delivery.

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5. Child care providers must be supported through training and improved wages and benefits.

6. The child care system must be flexible to meet the needs of families and communities.

7. To be sustained, a high-quality child care system must be integrated with the political and economic structure of society.

The model, as currently implemented in schools across the country, is funded in several ways. It relies on (1) parent fees, set on a sliding scale based on income; (2) in-kind support from the school district, including facilities, utilities, insurance, and secretarial and administrative support; (3) support from the private sector; and (4) federal, state, and local funds. These funds include Title I, Head Start, state grants, and existing child care subsidy programs. However, to replicate the model nationally, Zigler and Finn-Stevenson propose a system funded through the public education system relying on state funds for start-up costs and parent fees and state and local per pupil expenditures for ongoing expenses. The estimated start-up cost for this model is $54,420,000, phased in over seven years at the state level (assuming a three-year start-up period for each district). Ongoing expenses, including staff training and salary enhancements, would be paid for primarily in three ways. These are (1) state per pupil allotments for three- and four-year-olds, estimated at $3.7 billion per year (assuming a funding level equivalent to that provided for school-age children—$2,640 per pupil per year); (2) local per pupil allotments for three- and four-year-olds, estimated at just under $3 million per district (also assuming a funding level equivalent to that provided for school-age children—$2,568 per child per year); and (3) parent fees of $3,000 to $4,000 per year for full-day services. On a per child basis, this would raise the level of funding to about $8,000 to $9,000 per child, the full cost of high-quality care estimated by the NAEYC, which includes substantial increases in the salaries and benefits of early care and education providers (Willer 1990).

How Can Schools Build on Early Care and Education Experiences?

Schools can also play a role in extending the benefits of high-quality early care and education programs by providing transition services and supports that build on children's early care and education experiences. The transition from early care and education programs to school has interested educators since the 1960s, when early studies showed that children did not maintain the cognitive gains they had made in Head Start as they moved into the early grades of school (Zigler and Muenchow 1992). Educators refocused their attention on transitions during the early 1980s, when prekindergarten and mandatory kindergarten programs became increasingly common (SouthEastern Regional Vision for Education 1997). As the term implies, *transitions* have traditionally referred to changes between types of activities.

More recently, however, individuals are using *transitions* to refer to the changes both between types of activities and between environments (Lombardi 1992; Regional Educational Laboratories Early Childhood Collaboration Network 1995; SouthEastern Regional Vision for Education 1997). Transitions can be "vertical"—occurring across the time periods of children's lives, or "horizontal"—occurring within the same time frame but across the family, school, and community contexts in which children find themselves (Kagan 1992). Current efforts address both of these aspects of children's transitions.

When done well, transitions facilitate several valuable outcomes for young children. Good transitions provide children with the continuity they need to feel confident that behaviors in one environment will be appropriate in a different environment (Love et al. 1992). Moreover, prekindergarten experiences become critical learning experiences that children build on for future intellectual, social, and emotional endeavors (Katz 1989; Katz and McClellan 1991). Finally, transition services can empower parents and encourage them to develop a more positive attitude toward, and relationship with, the school and their children's teachers (Lombardi 1986). Early research on Head Start found that the more elementary school teachers participated in transition activities, the higher they rated the preparedness of children and the lower the children's stress during the first month of school, as reported by parents (Hubbell et al. 1987). This study also found that children receiving transition services experienced greater resilience in their self-confidence during their first year of school.

Researchers agree there are certain practices that promote successful transitions for children. Lombardi (1992) identified three key elements for ensuring continuity for young children, including (1) *developmentally appropriate practice*[4] across settings; (2) parent involvement and

ongoing communication between parents and teachers; and (3) supportive services (e.g., medical, mental health, and nutrition services) that meet the comprehensive needs of children and their families. Similarly, Love and colleagues (1992) stress the importance of parent involvement and coordination and communication between kindergarten and preschool staff. Others have suggested the importance of written transition plans and agreements that delineate roles and responsibilities, planned transition activities, and reciprocal visits among school and early care and education staff (Kagan 1992).

Synthesizing the work in the field and working with successful local partnerships across the country, the Regional Educational Laboratories Early Childhood Collaboration Network (1995) identified eight elements that compose a framework for promoting continuity of experience in early childhood:

1. Treating families as an integral part of partnerships and primary decisionmakers concerning their children's care and education
2. Sharing leadership among home, school, and community
3. Providing a full range of services that focus on the needs and circumstances of individual children and their families
4. Providing services that are consistent with children's home culture and language
5. Maintaining open communication among all partners while respecting confidentiality
6. Working together to increase knowledge and skills and the capacity of community services
7. Providing care and education services across settings that are developmentally and culturally appropriate
8. Documenting progress and using evaluation to improve policies, programs, and practices.

Currently, however, transition supports are not commonplace across the country. In 1989–90, only 13 percent of all schools surveyed had a formal transition policy, and only 10 percent reported systematic communication between kindergarten teachers and previous caregivers or teachers (Love et al. 1992). Nearly one-third (31 percent) of districts surveyed had no organized transition activities. Although this may be attributable to the challenges inherent in coordinating with the many providers of early care and education services currently operating in most communities, some efforts have been successful in helping children make smooth transitions from early childhood care and education to kindergarten.

Teaming for Learning with the Community, Monroe County, West Virginia. The Teaming for Learning with the Community program was developed during the 1992–93 school year, when the school system's special education teacher, Head Start coordinator, preschool director, and superintendent recognized the need to ease the transition to kindergarten for children in the district preschool program, the local Head Start program, and other community-based preschool programs. The Teaming for Learning program brings together a parent representative, teacher, and principal from each elementary school; staff from relevant governmental agencies in Monroe County; the county nurse; and staff from the county food service on a monthly basis to design and refine efforts to ease children's transition to school. Efforts to date have included transferring records from preschool programs to schools, disseminating information to parents to help them facilitate their children's transition, and holding open houses for incoming kindergartners.

The Teaming for Learning program has also planned supports to enhance transition efforts. Participants have initiated a districtwide Parents-as-Teachers program to provide home learning experiences that complement preschool and school learning. The district also supports a wide-reaching professional development program to help both preschool and early elementary teachers stay abreast of developmentally appropriate practices in working with young children. In addition, the district has established parent resource rooms in each elementary school, and the district's special education teacher provides training for parents in working with their children at home. After completing this training, parents serve as resources for other parents. (Information on this and the following initiative is based on telephone conversations with school staff.)

Covina Valley Unified School District, Covina Valley, California. Covina Valley Elementary School's efforts to ensure continuity for young children stem from a highly

collaborative effort to involve the business community in the Covina Valley Schools. Located in a generally wealthy region of California, the school serves a pocket of ethnically diverse, low-income students. To bolster the school's efforts to provide comprehensive services that support children's school success, including medical and dental care and safe after-school enrichment programs, the principal of Covina has forged approximately 50 partnerships with California businesses, has received over $250,000 from private sources, and has been awarded a California Healthy Start grant.

In addition to a school-based preschool program to prepare children for school, Covina Elementary has joined forces with the local YMCA to provide full-day care for community children too young to attend the school-based program. The school has also partnered with the Department of Recreation to provide an after-school program where students can spend time before their parents return home from work. Covina strives to provide a continuous experience for children across these settings and to involve parents in all aspects of the school's programming. Approximately 50 parents volunteer each day.

Okeechobee County Migrant Pre-K Program, Okeechobee County, Florida. Okeechobee County serves a diverse, low-income student population, including a large migrant population. Many parents in Okeechobee County have limited proficiency in English, and, as a result, their children face a unique set of challenges that can make the transition from district-sponsored prekindergarten for four-year-olds to kindergarten difficult. Okeechobee County has taken numerous measures to overcome these challenges. The district locates prekindergarten classrooms in the same building as kindergarten classrooms in order to provide continuity of environment for the children and arranges tours of their new classroom for rising kindergartners before summer vacation. The district also provides for continuity by staffing both prekindergarten and kindergarten classrooms with bilingual teacher aides and maintaining high staff–child ratios in each setting. In addition, the district provides joint staff development activities for prekindergarten and elementary school staff, and prekindergarten staff are included in school faculty meetings.

The school reaches out to families by conducting regular home visits to inform parents of services available to them. For example, the school employs a migrant aide to provide academic assistance to migrant children and their parents. The school also has a migrant advocate who assists families with health and social services. Finally, the school conducts a summer home-based outreach program to incoming kindergarten children (SouthEastern Regional Vision for Education 1997).

Conclusion

Research has demonstrated that early experiences can have a profound influence on children's long-term outcomes. At the same time, studies have repeatedly shown that many children do not experience growth-enhancing early care and education; in fact, a large percentage of the environments of children's early care and education are detrimental to their development. Schools and professional educators have a clear stake in this problem. Many of the 60 million children estimated to have been in nonparental early care and education settings in 1995 are already at the schoolhouse door. Research suggests that when children experience a high-quality early care program, they are more likely to succeed in school.

Many experts suggest that the current system of financing early care and education services is the primary cause of the low quality of care that most children receive. The current national funding level of about $40 billion is not sufficient to pay for high-quality services for all children. Experts estimate that an additional $80 billion would be necessary to finance universal, good-quality child care, or an additional $140 billion would be necessary to finance universal care of the highest quality. Among the many proposals for reform at the national level, none emerge as clear solutions that could "fix" the system and garner widespread national support. In general, several indigenous American values may hamper efforts to fund universal child care, including a reluctance to increase the government role in childrearing and ambivalence about encouraging maternal employment (Cohen 1996). These values may be changing, however. The recent White House Conference on Child Care and the many proposals and initiatives that came out of it are evidence of a shift.

At the same time, many states and localities are moving ahead with innovative financing strategies to increase access and improve quality on a smaller scale. Public schools can take several steps to support high-quality early care and education services. The primary strategies include providing early care and education services through approaches such as the 21st Century Schools Initiative and building on high-quality early care and education

services by collaborating with local programs to ensure a continuous experience for young children. Schools and professional educators can also play a role in advocating the importance of high-quality early care and education and the need for greater investment. In this capacity, schools and individuals can form partnerships with others interested in early care and education in their communities to explore strategies for improving and expanding existing community-based services for young children.

Notes

1. NAEYC is the nation's largest organization of early childhood professionals and others dedicated to improving the quality of early childhood education programs for children from birth through age eight. The Association administers the National Academy of Early Childhood Programs, a voluntary, national accreditation system for high-quality early childhood programs, and the National Institute for Early Childhood Professional Development, which provides resources and services to improve professional preparation and development of early childhood educators.

2. These numbers add up to more than 100 percent because some children participated in more than one type of nonparental arrangement.

3. According to Gomby, this estimate of cost provides for good-quality—but not the highest quality—care for all children. Most notably, Gomby's estimate provides for a lower level of staff compensation than does Willer's (Gomby et al. 1996; Willer 1990).

4. According to the National Association for the Education of Young Children, *developmentally appropriate practice* has three dimensions: *age appropriateness*—what is known about child development and learning at specific ages; *individual appropriateness*—what is known about the strengths, interests, and needs of each individual child; and *social and cultural appropriateness*—what is known about the social and cultural contexts in which children live (NAEYC 1997).

References

Adams, G., and N. Poersch. 1997. *Key Facts about Child Care and Early Education: A Briefing Book*. Washington, D.C.: Children's Defense Fund.

Adams, G., and N. Poersch. 1996. *State by State Investments in Child Care and Early Education in 1994*. Washington, D.C.: Children's Defense Fund.

Adams, G., and J. Sandfort. 1992. *First Steps, Promising Future: State Prekindergarten Initiatives in the Early 1990s*. Washington, D.C.: Children's Defense Fund.

Barnett, W.S. 1995. "Long-Term Effects of Early Childhood Programs on Cognitive and School Outcomes." *The Future of Children: Long-Term Outcomes of Early Childhood Programs* 5(3): 25–50.

Berk, L. 1985. "Relationships of Educational Attainment, Child-oriented Attitudes, Job Satisfaction, and Career Commitment to Caregiver Behavior toward Children." *Child Care Quarterly* 14: 103–29.

Boocock, S. 1995. "Early Childhood Programs in Other Nations: Goals and Outcomes." *The Future of Children: Long-Term Outcomes of Early Childhood Programs* 5(3): 94–114.

Boyer, E. 1991. *Ready to Learn: A Mandate for the Nation*. Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching.

Bredekamp, S., and C. Copple, eds. 1997. *Developmentally Appropriate Practices in Early Childhood Programs*. Washington, D.C.: National Association for the Education of Young Children.

Bruner, J. 1980. *Under Five in Britain*. Ypsilanti, MI: High/Scope Press.

Burts, D., C. Hart, R. Charlesworth, and L. Kirk. 1992. "A Comparison of Frequencies of Stress Behaviors Observed in Kindergarten Children in Classrooms with Developmentally Appropriate versus Developmentally Inappropriate Instructional Practices." *Early Childhood Research Quarterly* 5: 407–23.

Carnegie Corporation of New York. 1996. *Years of Promise: A Comprehensive Learning Strategy for America's Children*. New York: Author.

Casper, L. 1995. "What Does It Cost to Mind Our Preschoolers?" *Current Population Reports* (September) P70–52. Washington, D.C.: U.S. Bureau of the Census.

Child Care Bureau. 1997. *Child Care Bureau Programs*. Washington, D.C.: author.

Cohen, Abby J. 1996. A Brief History of Federal Financing of Child Care in the United States. *The Future of Children: Financing Child Care* 6(2): 26–40.

Cost, Quality, and Child Outcomes Study Team. 1995a. *Cost, Quality, and Child Outcomes in Child Care Centers: Executive Summary.* Denver, CO: University of Colorado at Denver.

Cost, Quality, and Child Outcomes Study Team. 1995b. "Cost, Quality, and Child Outcomes in Child Care Centers: Key Findings and Recommendations." *Young Children:* 40–50.

Demarest, E., E. Reisner, L. Anderson, D. Humphrey, and E. Farquhar. 1993. *Review of Research on Achieving the Nation's Readiness Goal: "By the year 2000, all children will start school ready to learn."* Washington, D.C.: Office of Research, U.S. Department of Education.

Dunn, L., S. Beach, and S. Kontos. 1994. "Quality in the Literacy Environment in Day Care and Children's Development." *Journal of Research in Childhood Education* 9: 24–34.

Field, T. 1980. "Preschool Play: Effects of Teacher: Child Ratios and Organizations of Classroom Space." *Child Study Journal* 10(3): 191–205.

Francis, P., and P. Self. 1982. "Imitative Responsiveness of Young Children in Day Care and Home Settings: The Importance of the Child to Caregiver Ratio." *Child Study Journal* 12: 119–26.

Frede, E.C. 1995. "The Role of Program Quality in Producing Early Childhood Program Benefits." *The Future of Children: Long-Term Outcomes of Early Childhood Programs:* 5(3): 115–32.

Fuller, B., and X. Liang. 1995. *Can Poor Families Find Child Care?* Cambridge MA: Harvard University.

GAO (U.S. General Accounting Office). 1994. *Early Childhood Programs: Multiple Programs and Overlapping Target Groups.* Washington, D.C.: author.

GAO (U.S. General Accounting Office). 1995a. *Early Childhood Programs: Promoting the Development of Young Children in Denmark, France, and Italy.* Washington, D.C.: author.

GAO (U.S. General Accounting Office). 1995b. *Welfare to Work: Child Care Assistance Limited; Welfare Reform May Expand Needs.* Washington, D.C.: author.

Goldberg, L. 1996. "Commentary." *The Future of Children: Financing Child Care* 6(2): 137–39.

Gomby, D.S., M.B. Larner, C.S. Stevenson, E.M. Lewit, and R.E. Behrman. 1995. "Long-Term Outcomes of Early Childhood Programs: Analysis and Recommendations." *The Future of Children: Long-Term Outcomes of Early Childhood Programs:* 5(3): 6–24.

Gomby, D.S., M.B. Larner, D.L. Terman, N. Krantzler, C.S. Stevenson, and R.E. Behrman. 1996. "Financing Child Care: Analysis and Recommendations." *The Future of Children: Financing Child Care* 6(2): 5–25.

Head Start Bureau. 1997. *Head Start Statistical Fact Sheet.* Washington, D.C.: author.

Helburn, S.W., and C. Howes. 1996. "Child Care Cost and Quality." *The Future of Children: Financing Child Care* 6(2): 62–82.

Herk, M. 1993. "Helping the Hand That Rocks the Cradle: The Politics of Child Care Policy at the State Level." Unpublished dissertation: Princeton University.

Hirsh-Pasek, K., M. Hyson, and L. Rescorla. 1990. "Academic Environments in Preschool: Do They Pressure or Challenge Young Children?" *Early Education and Development* 1: 401–23.

Hofferth, S.L. 1996. "Child Care in the United States Today." *The Future of Children: Financing Child Care* 6(2): 41–61.

Hofferth, S.L., A. Brayfield, S. Deich, and P. Holcomb. 1991. *National Child Care Survey, 1990.* Washington, D.C.: Urban Institute Press.

Howes, C. 1983. "Caregiver Behavior in Center and Family Day Care." *Journal of Applied Developmental Psychology* 4: 99–107.

Howes, C., and C. Hamilton. 1993. "The Changing Experience of Child Care: Changes in Teachers and in Teacher-Child Relationships and Children's Social Competence with Peers." *Early Childhood Research Quarterly* 8: 15–32.

Howes, C., and J. Rubenstein. 1985. "Determinants of Toddlers' Experience in Daycare: Age of Entry and Quality of Setting." *Child Care Quarterly* 14: 140–51.

Hubbell, R., M. Plantz, L. Condelli, and B. Barrett. 1987. *The Transition of Head Start Children into Public School, Final report: Volume 1.* Alexandria, VA: CSR, Inc.

Hyson, M., K. Hirsh-Pasek, and L. Rescorla. 1990. "The Classroom Practices Inventory: An Observation Instrument Based on NAEYC's Guidelines for Developmentally Appropriate Practices for 4- and 5-Year-Old Children." *Early Childhood Research Quarterly* 5: 475–94.

Kagan, S. 1992. "The Strategic Importance of Linkages and the Transition Between Early Childhood Programs and Early Elementary School." In *Sticking Together: Strengthening Linkages and the Transition Between Early Childhood Education and Early Elementary School (Summary of a National Policy Forum)*, 7–9. Washington D.C.: U.S. Department of Education.

Kagan, S., and N. Cohen. (in press). *Solving the Quality Problem: A Vision for the Early Care and Education System. A Final Report of the Quality 2000 Initiative.* New Haven, CT: Yale University.

Katz, L. 1989. *Engaging Children's Minds: The Project Approach.* Norwood, NJ: Ablex Publishing Corporation.

Katz, L., and D. McClellan. 1991. *The Teacher's Role in Children's Social Development.* Urbana, IL: ERIC Clearinghouse on Elementary and Early Childhood Education.

Knitzer, J., and S. Page. 1996. *Map and Track: State Initiatives for Young Children and Families.* New York: National Center for Children in Poverty.

Kontos, S., M. Howes, M. Shinn, and E. Galinsky. 1994. *Quality in Family Child Care and Relative Care.* New York: Teachers College Press.

Lombardi, J., ed. 1986. *Easing the Transition from Preschool to Kindergarten.* Washington, D.C.: Administration for Children, Youth and Families, U.S. Department of Health and Human Services.

Lombardi, J. 1992. *Beyond Transitions: Ensuring Continuity in Early Childhood Services.* ERIC Digest, ERIC Clearinghouse on Elementary and Early Childhood Education. EDO–PS–92–3.

Love, J., and E. Kisker. 1996. *What Choices Do They Have? The Supply of Center-based Child Care in Low-Income Neighborhoods.* Princeton, NJ: Mathematica Policy Research, Inc.

Love, J., M. Logue, J. Trudeau, and K. Thayer. 1992. *Transitions to Kindergarten in American Schools.* Portsmouth, NH: RMC Research Corporation.

Mantzicopoulos, P., S. Neuharth-Pritchett, and J.B. Morelock. 1994. "Academic Competence, Social Skills and Behavior among Disadvantaged Children in Developmentally Appropriate and Inappropriate Classrooms." Paper presented at the Annual Meeting of the American Educational Research Association, April, New Orleans.

Marcon, R. 1992. "Differential Effects of Three Preschool Models on Inner-City 4-Year-Olds. *Early Childhood Research Quarterly* 7: 517–30.

Mitchell, A., L. Stoney, and H. Dichter. 1997. *Financing Child Care in the United States: An Illustrative Catalog of Current Strategies.* Philadelphia, PA: The Pew Charitable Trusts.

Nash, M. 1997. "Fertile minds." *Time*, February, 49–62.

National Association for the Education of Young Children. 1991. *Accreditation Criteria and Procedures of the National Academy of Early Childhood Programs.* Washington, D.C.: Author.

National Child Care Information Center. 1997. *Child Care Bulletin. Issue 17.* Vienna, VA: author.

National Education Goals Panel. 1995. *Data Volume for the National Education Goals Report. Volume 1: National Data.* Washington, D.C.: U.S. Government Printing Office.

National Institute of Child Health and Human Development Early Child Care Research Network. 1996. *Characteristics of Infant Child Care: Factors Contributing to Positive Caregiving.* Washington, D.C.: Author.

Newberger, J. 1997. "New Brain Development Research: A Wonderful Window of Opportunity to Build Public Support for Early Childhood Education." *Young Children* 52(4): 4–9.

Phillips, D., ed. 1987. *Quality in Child Care: What Does Research Tell Us?* Washington, D.C.: National Association for the Education of Young Children.

Powell, D. 1989. *Families and Early Childhood Programs.* Washington, D.C.: National Association for the Education of Young Children.

Regional Educational Laboratories Early Childhood Collaboration Network. 1995. *Continuity in Early Childhood: A Framework for Home, School, and Community Linkages.* Washington, D.C.: Author.

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Schultz, T. 1996. "Commentary." *The Future of Children: Financing Child Care* 6(2): 139–41.

Schweinhart, L.J., H.V. Barnes, D.P. Weikart, with W.S. Barnett and A.S Epstein. 1993. *Significant Benefits: The High/Scope Perry Preschool Study Through Age 27.* High/Scope Educational Research Foundation Monograph, no. 10. Ypsilanti, MI: High/Scope Press.

Schweinhart, L.J., and D.P. Weikart. 1997. *Lasting Differences: The High/Scope Preschool Curriculum Comparison Study Through Age 23.* Ypsilanti, MI: High/Scope Educational Research Foundation.

Sherman, C.W., and D.P. Mueller. 1996. "Developmentally Appropriate Practice and Student Achievement in Inner-City Elementary Schools." Paper presented at Head Start's Third National Research Conference, Washington, D.C.

Siegel, G., and A. Loman, 1991. *Child Care and AFDC Recipients in Illinois: Patterns, Problems, and Needs.* St. Louis, MO: Institute of Applied Research.

Smith, P., and K. Connolly. 1981. *The Behavioral Ecology of Preschool.* Cambridge, England: Cambridge University Press.

Smith, S., M. Fairchild, and S. Groginsky. 1995. *Early Childhood Care and Education: An Investment That Works.* Denver, CO: National Conference of State Legislatures.

SouthEastern Regional Vision for Education. 1997. "Terrific Transitions: Ensuring Continuity of Services for Children and Their Families." Unpublished draft. Tallahassee, FL.

Stipek, D.S., R. Fieler, D. Daniels, and S. Milburn. 1995. "Effects of Different Instructional Approaches on Young Children's Achievement and Motivation." *Child Development* 66: 209–23.

Stith, S.M., and A.J. Davis. 1984. "Employed Mothers and Family Day Care: A Comparative Analysis of Infant Care." *Child Development* 55: 4–28.

Stoney, L., and M.H. Greenberg. 1996. "The Financing of Child Care: Current and Emerging Trends." *The Future of Children: Financing Child Care* 6(2): 83–102.

Walker, J.R. 1996. "Funding Child Rearing: Child Allowance and Parental Leave." *The Future of Children: Financing Child Care.* 6(2): 122–36.

West, J., D. Wright, and E.G. Hausken. 1995. *Child Care and Early Education Program Participation of Infants, Toddlers, and Preschoolers.* Washington, D.C.: National Center for Education Statistics, U.S. Department of Education.

Whitebook, M., C. Howes, and D. Phillips. 1990. *The National Care Staffing Study: Who Cares?: Child Care Teachers and the Quality of Care in America, Executive Summary.* Oakland, CA: National Center for the Early Childhood Work Force (formerly the Child Care Employee Project).

Whitebook, M., L. Sakai, and C. Howes. 1997. *NAEYC Accreditation as a Strategy for Improving Child Care Quality: An Assessment by the National Center for the Early Childhood Work Force.* Washington, D.C.: National Center for the Early Childhood Work Force (formerly the Child Care Employee Project).

Willer, B., S. Hofferth, E. Kisker, P. Divine-Hawkins, E. Farquhar, and F.B. Glantz. 1991. *The Demand and Supply of Child Care in 1990.* Washington, D.C.: National Association for the Education of Young Children.

Willer, B., ed. 1990. *Reaching the Full Cost of Quality in Early Childhood Programs.* Washington, D.C.: National Association for the Education of Young Children.

Wolf, D., and F. Sonenstein. 1991. "Child Care Use among Welfare Mothers: A Dynamic Analysis." *Journal of Family Issues* 12: 519–36.

Yoshikawa, H. 1995. "Long-Term Effects of Early Childhood Programs on Social Outcomes and Delinquency." *The Future of Children: Long-Term Outcomes of Early Childhood Programs* 5(3): 51–75.

Zigler, E., and M. Finn-Stevenson. 1996. " Funding Child Care and Public Education." *The Future of Children: Financing Child Care* 6(2): 104–21.

Zigler, E., and S. Muenchow. 1992. *Head Start: The Inside Story of America's Most Successful Educational Experiment.* New York: Basic Books.

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